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That which is claimed is:

 A method of killing ectoparasites on a subject, said method comprising: topically administering to an area on the subject where ectoparasites are present a composition comprising a fatty acid ester and at least 20% cyclic siloxane;

wherein said fatty acid ester is at a concentration of between 25% and 65% w/w, and is an ester of a fatty acid selected from the group consisting of consisting of myristate, laurate, palmitate, stearate, arachidate, behenate, lignocerate, palmitoleate, oleate, linoleate, and arachidonate; and

further wherein said composition does not contain any other agent in an amount effective for killing said ectoparasites.

- 2. A method according to claim 1, wherein said ectoparasites are selected from the group consisting of lice, mites, ticks, and fleas.
 - 3. A method according to claim 2, wherein the subject is a mammal.
- 4. A method according to claim 3, wherein the mammal is a human and the ectoparasites are head lice.
- 5. A method according to claim 3, wherein the mammal is a dog or cat and the ectoparasites are fleas or ticks.
- 6. A method according to claim 3, wherein the mammal is a dog or cat and the ectoparasites are mites.
- 7. A method according to claim 3, wherein said ectoparasite is selected from the group consisting of body lice, crab lice, scabies mites, and ticks.

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8. A method according to claim 1, wherein the cyclic siloxane is selected from the group consisting of decacyclomethicone, octametylcyclomethicone, cyclotetrasiloxane, cyclopentasiloxane, cyclopentasiloxane, and decamethylcyclopentasiloxane.

- 9. A method according to claim 1, wherein said fatty acid ester is isopropyl myristate.
- 10. A method according to claim 1, wherein said cyclic siloxane is decacyclomethicone.
- 11. A method according to claim 1, wherein said fatty acid ester is isopropyl myristate and said cyclic siloxane is decacyclomethicone.
- 12. A method of killing ectoparasites on a subject, said method comprising, topically administering to an area on the subject where ectoparasites are present a composition comprising a fatty acid ester, at least 20% cyclic siloxane, and a mectin and/or a mycin;

wherein said fatty acid ester is at a concentration of between 25% and 65% w/w, and is an ester of a fatty acid selected from the group consisting of consisting of myristate, laurate, palmitate, stearate, arachidate, behenate, lignocerate, palmitoleate, oleate, linoleate, linolenate, and arachidonate; and

further wherein the composition does not comprise any other agent in an amount effective for killing said ectoparasite.

- 13. A method according to claim 12, wherein said ectoparasites are selected from the group consisting of lice, mites, ticks, and fleas.
 - 14. A method according to claim 13, wherein the subject is a mammal.

- 15. A method according to claim 14, wherein the mammal is a human and the ectoparasites are head lice.
- 16. A method according to claim 14, wherein the mammal is a dog or cat and the ectoparasites are fleas or ticks.
- 17. A method according to claim 14, wherein the mammal is a dog or cat and the ectoparasites are mites.
- 18. A method according to claim 14, wherein said ectoparasites are selected from the group consisting of body lice, crab lice, scabies mites, and ticks.
- 19. A method according to claim 12, wherein the cyclic siloxane is selected from the group consisting of decacyclomethicone, octametylcyclomethicone, cyclotetrasiloxane, cyclopentasiloxane, cyclohexasiloxane, and decamethylcyclopentasiloxane.
- 20. A method according to claim 12, wherein said fatty acid ester is isopropyl myristate.
- 21. A method according to claim 12, wherein said cyclic siloxane is decacyclomethicone.
- 22. A method according to claim 12, wherein said fatty acid ester is isopropyl myristate and said cyclic siloxane is decacyclomethicone.
- 23. A method according to claim 12, wherein the mectin is ivermectin, and the mycin is milbemycin.
- 24. A method according to claim 12, wherein the composition further comprises S-methoprene.

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25. A method according to claim 22, wherein the composition further comprises S-methoprene.

26. A method according to claim 23, wherein the composition further comprises S-methoprene.